

REMARKS

Applicants appreciate the Examiner's thorough review of the present application, and respectfully request reconsideration in light of the preceding amendments and the following remarks.

Claims 1-3, 5-6, and 8-22 are pending in the application. Claims 4 and 7 have been cancelled without prejudice or disclaimer. Claims 1-3 and 5-6 have been amended to better define the claimed invention. Claims 8-22 have been added to provide Applicants with the scope of protection to which they are believed entitled. The specification has been revised to better describe the preferred embodiments of the invention. A new Abstract has been submitted in compliance with commonly accepted US patent practice. No new matter has been introduced through the foregoing amendments.

The 35 U.S.C. 103(a) rejection of claims 1-7 as being unpatentable over *Spatafora* in view of other teaching references is noted. Independent claim 1 has been amended to overcome this rejection.

In particular, amended claim 1 is now directed to an article turning apparatus, comprising: first and second stations at which a plurality of articles are to be successively loaded and unloaded, respectively; a rotary base rotatable about a stationary shaft, the first and second stations being positioned in a peripheral zone of the rotary base; and a plurality of load-carrying tables arranged at regular intervals along the peripheral zone. The load-carrying tables are adapted to carry thereon the articles and include first and second load-carrying tables rotatably mounted on the rotary base so as to be rotated around their own axes while moving along with the peripheral zone as the rotary base rotates. The first and second load-carrying tables are alternately arranged on the rotary base so that each of the second load-carrying tables is interposed between one pair of the first load-carrying tables. The first and second load-carrying tables are rotated around their own axes in

opposite directions while being moved by the rotary base from the first station to the second station as the rotary base rotates. The apparatus further comprises a **belt** trained around a portion of the **stationary shaft** and a portion of at least one of the first and second load-carrying tables, wherein a rotational movement of the rotary base about the portion of the stationary shaft causes the belt to travel about the stationary shaft which belt, in turn, will cause the at least one of the first and second load-carrying tables to rotate about its own axis.

In other words, at least one of the load-carrying tables is driven by a belt (e.g., 30, 31 in FIGs. 2-3) trained around a portion (e.g., 27 in FIG. 2) of the stationary shaft (e.g., 10 in FIG. 2) of the rotary base. The applied references, especially *Spatafora*, clearly fails to disclose, teach or suggest the newly added claim limitations because in *Spatafora* “load-carrying tables” 19 are not driven by a belt or belts, but by tracks 76, 77. The teaching references do not appear to supply the missing claim element. Therefore, Applicants respectfully submit that amended claim 1 is patentable over the applied art of record.

Claims 2-3, 5-6 and new claims 8-19 depend from claim 1, and are considered patentable at least for the reason advanced with respect to amended claim 1. Claims 9-19 are also patentable on their own merits since these claims recite other features of the invention neither disclosed, taught nor suggested by the applied art.

For example, as to claims 9-12, the applied references do not fairly disclose, teach or suggest the claimed **first and second belts** (e.g., 30, 31 in FIGs. 2-3) for driving first and second load-carrying tables, respectively.

As to claims 10-12, the applied references do not fairly disclose, teach or suggest the claimed **pulley** (e.g., 29 in FIG. 3) on the shaft of the at least one load-carrying table.

As to claims 10-12, the applied references do not fairly disclose, teach or suggest the claimed **different angular velocities** of the first and second load-carrying tables. See FIG. 18 and

page 52, lines 16 and 22 of the specification. In *Spatafora*, the first and second “load-carrying tables” appear to always have the same angular velocities. See FIGs. 1 and 3 of the reference.

As to claims 13-18, the applied references do not fairly disclose, teach or suggest the claimed suction box which is **common** to all the load-carrying tables and which is in fluid communication with the through holes of a load-carrying table **only** when the load-carrying table travels from the first station toward the second station. *Spatafora* is silent on whether the suction force, if used, is still present or not when a “load-carrying table” is on the return path, i.e., the ghosted part of tracks 76, 77.

As to claims 14-17, the applied references do not fairly disclose, teach or suggest the claimed suction box’s **elongated opening** extending along a path on which the load-carrying tables travel from the first station to the second station.

As to claims 15-16, the applied references do not fairly disclose, teach or suggest the claimed **hollow shafts** which are in fluid communication with the elongated opening of the suction box only when the respective load-carrying tables are on the path from the first station to the second station.

As to claim 16, the applied references do not fairly disclose, teach or suggest the claimed **pulleys** on the hollow shafts.

As to claim 17, the applied references do not fairly disclose, teach or suggest the claimed elongated opening having a first and second ends wherein an inner cross section of the elongated opening at **the first end is larger than at the second end**, thereby inducing different suction forces at the first and second ends and facilitating transfer of the articles at the first and second stations.

As to claim 18, the applied references do not fairly disclose, teach or suggest that the through holes of a **maximum of two load-carrying tables** are in fluid communication with the

suction box **at a time**. See, e.g., FIG. 7 of the instant application.

As to claim 18, the applied references do not fairly disclose, teach or suggest that the claimed structure of the conveyors. See, e.g., FIGs. 4-5 of the instant application.

New independent claim 20 is patentable over the applied references because the references fail to disclose, teach or suggest the claimed suction box **common** to all the load-carrying tables and in fluid communication with the through holes of a load-carrying table only when the load-carrying table travels from the first station toward the second station. Note the above discussion of claim 13.

Claims 21-22 depend from claim 20, and are considered patentable at least for the reason advanced with respect to claim 20. Claims 21-22 are also patentable on their own merits since these claims recite other features of the invention neither disclosed, taught nor suggested by the applied art, as discussed with respect to claims 14-15, respectively.

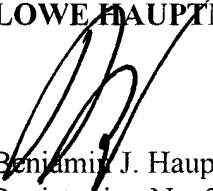
Each of the Examiner's rejections has been traversed. Accordingly, Applicants respectfully submit that all claims are now in condition for allowance. Early and favorable indication of allowance is courteously solicited.

The Examiner is invited to telephone the undersigned, Applicant's attorney of record, to facilitate advancement of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

LOWE HAUPTMAN GILMAN & BERNER, LLP



Benjamin J. Hauptman
Registration No. 29,310

USPTO Customer No. 22429
1700 Diagonal Road, Suite 310
Alexandria, VA 22314
(703) 684-1111 BJH/KL/klb
(703) 518-5499 Facsimile
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